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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,012	01/16/2004	Tomoyuki Kojima	0051-0217P	5749
2292 7590 02/26/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER MCALISTER, WILLIAM M				
ART UNIT		PAPER NUMBER		
3753				
NOTIFICATION DATE		DELIVERY MODE		
02/26/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

# Office Action Summary

Application No.

10/758,012

Applicant(s)

KOJIMA ET AL.

Examiner

WILLIAM MCCALISTER

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2008 (amendment).
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-845)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/18/2008
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

DETAILED ACTION

Claims 2 and 3 were cancelled. Claims 1 and 4-9 are pending for consideration.

*Claim Rejections - 35 USC § 112*

1. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. What is to on the side of the table base of the conveyor table: the minute sectional suction channel, the vacuum suction channel, the work receiving opening, or some combination of these?

*Claim Rejections - 35 USC § 103*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1 and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arishiro (US 2001/0008061) in view of Mori (US 5,191,218).

Regarding claim 1, Arishiro discloses a vacuum suction system (FIG 11), comprising  
a vacuum leak generation part (generally, member 5),  
a vacuum generation mechanism (35) connected to the vacuum leak generation part, and

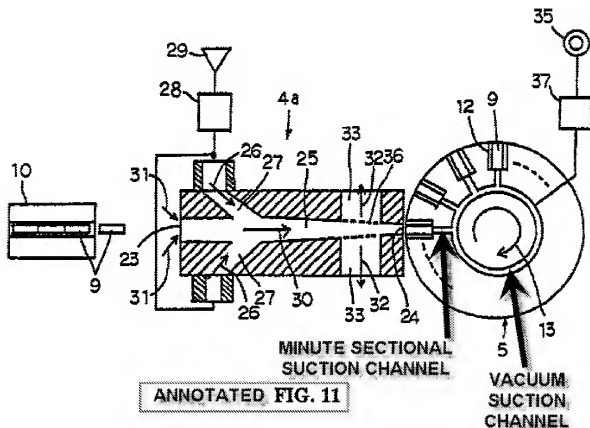
wherein the vacuum leak generation part includes

- a table base (inherently table 5 must be supported by some structure)
- disposed on a side of the vacuum generation mechanism,
- a vacuum suction channel (see annotated FIG 7 below),
- a conveyor table (5) rotatably mounted on the table base (whether or not the conveyor table rotates *with respect to* its inherent base is seen as immaterial to the broadest reasonable interpretation of this limitation), and
- a work receiving opening (12) for receiving a work (9),

the work receiving opening being connected to the vacuum suction channel (by way of the "minute sectional suction channel", see annotated FIG 11).

Arishiro does not disclose the vacuum level adjustment mechanism as claimed. However, Mori teaches that it was known in the art at the time of invention to use a vacuum level adjustment mechanism (113a, 114a, 115a-b, 116a, 117, 120; see FIG 6) connected to a similar vacuum leak generation mechanism (106, 111). Mori teaches the vacuum level adjustment mechanism to comprise: negative pressure sensor (113a) to detect a vacuum level of a similar work receiving opening (106.sub.2) of a similar work table (106), and an adjustment part (115a, 115b) which adjusts the vacuum level of the vacuum leak generation mechanism based on a signal from the negative pressure sensor (col. 9 lines 38-42). To more accurately control Arishiro's vacuum suction system using closed-loop feedback, it would have been obvious to one of

ordinary skill in the art at the time of invention to supplement Arishiro's vacuum suction system with a vacuum level adjustment mechanism, as taught by Mori.



Regarding claim 4 as understood, Arishiro discloses a minute sectional suction channel located between the vacuum suction channel and the work receiving opening (see annotated FIG 11 above), *on the side of the table base* [wherein the table base is a component] *of the conveyor table*. (Any positional relationship between two items can be construed as the first item being "on a side" of the second item.)

Regarding claim 5, Mori also discloses the vacuum level adjustment mechanism to include a compressed gas generation source (116a) for generating compressed gas, wherein the adjustment part is adapted to jet out the compressed gas from the compressed gas generation source to the vacuum leak generation part based on the signal from the negative pressure sensor (by operation of control valve 115b, see col. 9 lines 30-32 and 38-42).

Mori does not disclose the compressed gas to be air. To decrease the cost of operating the Arishiro-Mori system, it would have been obvious to one of ordinary skill in the art at the time of invention to use air as the compressed gas rather than helium, since Arishiro teaches that air is suitable for his process (see air supply 29).

Regarding claim 6, Mori implicitly discloses the adjustment part (115b) to jet out compressed gas based on the signal from the negative pressure sensor when the vacuum level rises above a maximum level, and to stop the compressed gas when the vacuum level falls below a minimum level (since pressure in passageway 111 is maintained constant by control of valve 115b, see col. 10 lines 28-32).

The method of claims 7-9 would necessarily be performed during the normal and usual operation of Arishiro's vacuum suction system as supplemented with Mori's vacuum adjustment mechanism (the obviousness analysis regarding the use of air is

incorporated by reference). (Regarding claim 9, the release of compressed air inherently occurs intermittently, for otherwise there would be no need for valve 115b).

### *Response to Arguments*

3. Applicant's arguments with respect to all of the claims have been considered but are moot in view of the new ground(s) of rejection. However, to the extent that Applicant's arguments might be construed as pertinent to the present rejection, please consider the following responses.

a. Applicant argues that Arishiro does not disclose a pressure sensor, and that Arishiro's element 37 may not be a control valve (Arishiro's written description omits specific mention of element 37, although by pictorial analogy to members 28 and 34, member 37 might be construed as a control valve). In response, each element of the vacuum level adjustment mechanism, including a pressure sensor and control valve, is taught by Mori. It is Mori's teaching which meets these elements of the claims.

b. Applicant argues that Mori fails to teach a table base with a suction channel, and a conveyor table rotatably mounted on the table base. As set forth above, these features are inherent to Arishiro's system.

### *Conclusion*

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM MCCALISTER whose telephone number is (571)270-1869. The examiner can normally be reached on Monday through Friday, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WILLIAM MCCALISTER/  
Examiner, Art Unit 3753

/Stephen M. Hepperle/  
Primary Examiner, Art Unit 3753

WM  
2/7/2009